

Title (en)

MOTOR CONTROL DEVICE AND STEERING SYSTEM

Title (de)

MOTORSTEUERUNGSVORRICHTUNG UND LENKSYSTEM

Title (fr)

DISPOSITIF DE COMMANDE DE MOTEUR ET SYSTÈME DE DIRECTION

Publication

EP 3925859 A1 20211222 (EN)

Application

EP 21174618 A 20210519

Priority

JP 2020089404 A 20200522

Abstract (en)

A motor control device (100) controls an electric motor (110) in a steering system (200) including a hydraulic mechanism (240) that applies a part of a turning force to a turning mechanism (230) and the electric motor (110) that applies the other part of the turning force. The motor control device (100) includes: an actual turning angle acquiring unit (134) configured to acquire an actual turning angle of turning wheels (220); a target turning angle acquiring unit (131) configured to acquire a target turning angle which is a target value of a turning angle; a control value generating unit (132) configured to generate a motor control value for controlling the electric motor (110) such that the actual turning angle reaches the target turning angle; and an instruction value calculating unit (133) configured to generate an instruction value which is obtained by filtering a natural frequency of the steering system (200) in response to the motor control value.

IPC 8 full level

B62D 5/04 (2006.01); **B62D 5/06** (2006.01); **B62D 6/00** (2006.01)

CPC (source: CN EP US)

B62D 5/046 (2013.01 - CN); **B62D 5/0463** (2013.01 - US); **B62D 5/0472** (2013.01 - EP); **B62D 5/092** (2013.01 - EP); **B62D 6/001** (2013.01 - CN); **B62D 6/002** (2013.01 - CN US); **B62D 5/06** (2013.01 - EP); **B62D 6/002** (2013.01 - EP)

Citation (applicant)

WO 2018055803 A1 20180329 - HITACHI AUTOMOTIVE SYSTEMS LTD [JP]

Citation (search report)

- [Y] US 2019168802 A1 20190606 - MATSUMURA TATSUO [JP]
- [Y] US 10358163 B2 20190723 - TSUBAKI TAKAHIRO [JP]
- [A] US 2016129935 A1 20160512 - AKATSUKA HISAYA [JP], et al
- [A] US 2019308661 A1 20191010 - NAIK ANAND PRADIP [US], et al
- [A] WO 2013119147 A1 20130815 - VOLVO LASTVAGNAR AB [SE], et al
- [A] US 2003120404 A1 20030626 - ENDO SHUJI [JP]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3925859 A1 20211222; CN 113696964 A 20211126; JP 2021183447 A 20211202; JP 7452243 B2 20240319; US 2021362775 A1 20211125

DOCDB simple family (application)

EP 21174618 A 20210519; CN 202110546247 A 20210519; JP 2020089404 A 20200522; US 202117322111 A 20210517